

WHAT IS CLAIMED IS:

1. A thin film transistor array panel comprising:
 - a substrate;
 - a gate electrode;
 - 5 a gate insulating layer formed on the gate electrode;
 - a polysilicon layer formed on the gate insulating layer and including a pair of ohmic contact areas doped with conductive impurity;
 - source and drain electrodes formed on the ohmic contact areas at least in part;
 - a passivation layer formed on the source and the drain electrodes and having a
- 10 contact hole exposing the drain electrode at least in part; and
 - a pixel electrode formed on the passivation layer and connected to the drain electrode through the contact hole.
2. The thin film transistor array panel of claim 1, wherein the conductive
15 impurity comprises boron or phosphorous.
3. The thin film transistor array panel of claim 1, wherein concentration of
the impurity ranges from about 1×10^{14} to about 1×10^{16} .
- 20 4. The thin film transistor array panel of claim 1, further comprising:
 - a gate line disposed between the substrate and the gate insulating layer and connected to the gate electrode; and

a data line disposed between the gate insulating layer and the passivation layer and connected to the source electrode.

5. A method of manufacturing a thin film transistor array panel, the method comprising:

forming a gate electrode;

depositing a gate insulating layer and a polysilicon layer on the gate electrode in sequence;

forming a photoresist having a first portion and a second portion thinner than the first portion on the polysilicon layer;

patterning the polysilicon layer using the photoresist as a mask to form a semiconductor layer;

removing the second portion of the photoresist;

performing impurity implantation using the first portion of the photoresist as a mask to form ohmic contact areas in the semiconductor layer;

removing the first portion of the photoresist;

forming source and drain electrodes on the ohmic contact areas;

forming a passivation layer having a contact hole on the drain electrode; and

forming a pixel electrode on the passivation layer.

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6. The method of claim 5, wherein the formation of the photoresist comprising:

coating a photoresist film on the polysilicon layer;

exposing the photoresist film through a photo-mask having a slit pattern or a translucent portion facing the second portion of the photoresist; and
developing the photoresist film to form the photoresist.

5 7. The method of claim 5, wherein the impurity comprises p type conductive impurity.